

Docket JP919990715US1

Appl. No.: 09/438,645
Filed: November 12, 1999**REMARKS**

Applicant gratefully acknowledges that the Office action of March 30, 2004, is non-final.

Claims 2-6, 10, 12-18 and 22 are pending in the application. All the claims stand rejected. Claims 2-6 stand rejected under 35 USC 103(a) as being unpatentable over U.S. patent 6,446,028 ("Wang") in view of U.S. patent 6,243,761 ("Mogul"). Claims 10, 12-18 and 22 stand rejected under 35 USC 103(a) as being unpatentable over Wang in view of Mogul and further in view of U.S. patent 5,812,780 ("Chen").

Applicant herein amends claims 2 and 10 to more clearly set out patentable distinctions of the present invention. Specifically, claim 2 is herein amended to state that "... the measuring of one or more performance criteria includes: i) time stamping such a live map by the client before the transmitting of such a processing load to the server and ii) receiving, by the client, a reply map for the live map from the server after the server processes the load, wherein the reply map includes server processing time measured by the server so that the client is able to compute elapsed time from a client perspective and compare ones of the client-perspective elapsed times to ones of the server processing times for specific ones of the application layer transactions to determine server and network latency ...". Claim 10 is herein similarly amended.

No new matter is added herein because the original specification provides support for the amendment. Specifically, see the original specification, pages 5 and 8-10. See also remarks submitted in Applicant's reply dated September 15, 2003 (regarding page 5 of the original specification). See also remarks submitted in Applicant's reply dated January 6, 2004 (including annotated portions of pages 8-10).

Applicant contends that the amendments submitted herein further distinguish and clarify the invention with regard to the nature of the live maps that define the load and with regard to who measures performance. Applicant maintains that the independent claims of the present application are patentably distinct from the art relied upon with regard to the homogenous nature of the load that is formulated and executed and iteration of the load. Moreover, the dependent claims of the present invention further point out features that are also significant, advantageous and deserving of weight.

Live maps. The independent claims of the present invention state that the client forms a specific collection of information (referred to in the lexicography of the present application as

Docket JP919990715US1

Appl. No.: 09/438,645
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"live maps") identifying transactions and including data required for the transactions. The claims state that a computing operation performed by the client resides in an application layer that communicates with a middleware layer on the client, that data for the chosen application included in the live maps include data formed at the client application layer, and that the collection of live maps is passed from the client application layer to the client middleware layer.

As pointed out by Applicant previously, this arrangement enables the client to time stamp the same transactions when it sends them to the sever and receives them back and to relate them to the transactions and time stamps the server returns. (Or the client could send the information to the server, i.e., vice versa with respect to the example shown.) In this way the client can compare its own computed elapsed time to that of the server for a specific transaction and can deduce the network latency.

The latest Office action is not clear regarding what was relied upon in the rejection regarding this feature, as the feature was previously stated in more general terms. That is, the October 6, 2003, Office action equated Wang's TCP/IP packets to live maps of the present invention, but the Office action added U.S. patent 5,958,009 ("Friedrich") to show claimed application layer aspects, i.e., formulating live maps at an application layer by a client and passing them from client to server. The present Office action contends that Wang teaches a collection of live maps. Office action dated March 30, 2004, page 5, item 10. But then the Office action admits Wang and Mogul *fail to teach* live maps. Office action dated March 30, 2004, page 7, lines 6-8. Nevertheless the Office action goes on to state that *Chen* supplies the teaching about live maps missing from Wang and Mogul. Office action dated March 30, 2004, page 7, lines 11-14.

Despite Applicant's view about lack of clarity of the March 30, 2004, Office action, Applicant agrees that the claims Applicant previously submitted did not explicitly state *how* the formation of live maps at the application layer relate to performance measuring. To more clearly point out patentable distinctions regarding this feature of the invention, claims 2 and 10 are herein amended as pointed out above. Specifically, with regard to *how* the formation of live maps at the application layer relate to the performance measuring amended claim 2, for example, states that the client forms "... a first collection of a number of live maps, wherein such a live map includes i) identification of an application layer transaction for actual processing by the

Docket JP919990715US1

Appl. No.: 09/438,645
Filed: November 12, 1999

server running a chosen computing application, and ii) data for the chosen application, including data formed at the client application layer . . .” Thus, it is clear that the live map relates to an *application layer* transaction. The amended claim goes on to state that the measuring of performance includes “time stamping such a live map by the client before the transmitting of such a processing load to the server and ii) receiving, by the client, a reply map for the live map from the server after the server processes the load, wherein the reply map includes server processing time measured by the server . . .” Thus, the amended claim makes it clear “that the client is able to compute elapsed time from a client perspective and compare ones of the client-perspective elapsed times to ones of the server processing times for specific ones of the *application layer* transactions to determine server and network latency . . .” Neither Wang, Mogul, Chen, nor any combination thereof teach this aspect of the invention set out in the amended claims.

Who measures performance. According to independent claims 2 and 10 of the present application, a client forms a collection of live maps which identify transactions and include data required for the transactions, and sends the live maps to a server. The same client measures performance of the server. Alternatively, the server measures its own performance. The Office action relies upon Mogul for teaching about a server measuring its own performance. However, the amendments submitted herein further distinguish and clarify the invention with regard to who measures performance, rendering the basis for the rejection moot.

Specifically, the amended independent claims state, regarding the measuring of performance that the *client* time stamps live maps before the transmitting and that the client receives a corresponding reply from the *server* after the server processes the load, wherein the reply map includes server processing time *measured by the server*. Mogul does not teach this.

Homogeneous execution. The independent claims of the present application state that the transactions of the collection are all for the *same computing application*. The performance measurement is further facilitated by this feature of the present invention, since all the transactions for a measured processing load are for the same application running on the server. It is difficult to account for uncontrolled load variations. This homogeneity tends to reduce uncontrolled variations. The limiting of the collection of maps to a single application

Docket JP919990715US1

Appl. No.: 09/438,645
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advantageously enables exploration of server performance as performance responds to selective variation in the nature of the processing load.

The Office action maintains its reliance on Wang for these teachings. Applicant respectfully disagrees. However, rather than repeat herein arguments that have been previously stated, Applicant will defer this issue for appeal, if appeal should become necessary.

Iterating. According to the present independent claims, the first collection of live maps (i.e., the collection on the client) is changed and transmitted from the client to the server, so that the server processing load resulting from the first collection of live maps is different than the load resulting from the next, changed collection. More specifically, the changing includes changing the number of live maps and types of transactions in the first collection of live maps. Then, the transactions for the new live maps are actually processed by the server and performance measuring is repeated. This iterative process advantageously enables exploration of server performance as performance responds to selective variation in the nature of the processing load.

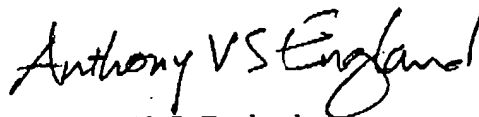
Again, the Office action maintains its reliance on Wang for these teachings. Applicant respectfully disagrees. However, again rather than repeat herein arguments that have been previously stated, Applicant will defer this issue for appeal, if appeal should become necessary.

REQUESTED ACTION

Applicant contends that the invention, as claimed according to amendments submitted herein, is patentably distinct from the cited art, and requests that the claims be allowed and promptly passed to issuance.

Attorney can be contacted at the telephone number below, or Examiner may wish to contact Attorney by e-mail at the address below if necessary to schedule a telephone call.

Respectfully submitted,



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